

ITS PROJECT APPLICATION FORM FY 2009-2013 TIP

General Instructions: This form is to be used to request federal Congestion Mitigation and Air Quality (CMAQ) funding available through the Maricopa Association of Governments for Intelligent Transportation System (ITS) projects to be included in the FY 2009-2013 MAG Transportation Improvement Program. Currently funding is available only for **FY 2013**.

Separate application forms are available for bicycle, pedestrian, air quality, and transit projects. Freeway, street and rail transit projects will be programmed in a separate process.

This application form includes:

- Part A: Project Description and TIP Listing Information. In Part A, the applicant provides the minimum information necessary to list a project in the TIP as required by applicable federal regulations and general descriptive information necessary for MAG staff and technical committees to evaluate the project.
- Part B: Project Congestion Management System (CMS) and Congestion Mitigation Air Quality (CMAQ) Data: In Part B, the applicant provides data necessary for MAG staff to calculate CMS and CMAQ scores for projects.
- Part C: MAG Technical Committee Additional Information. This section is used to collect information requested by the MAG ITS Committee. The MAG ITS Committee is charged with evaluating and recommending ITS projects for federal funding. **PLEASE NOTE: Part C is only available electronically.** It is available at: <http://www.mag.maricopa.gov/project.cms?item=413>, or you can contact Leo Luo: lluo@mag.maricopa.gov, and he will send you the electronic file.

Deadlines and Transmittal Instructions: All sections should be completed and returned to MAG Offices by **5:00 p.m. September 7, 2007**. Please e-mail Judy Tadlock at MAG, jtadlock@mag.maricopa.gov this application (Part A & B). Part C is only available electronically as noted above. Please e-mail Leo Luo the completed Part C, excel file to lluo@mag.maricopa.gov. The mailing address and FAX number for the MAG offices is:

ATTN: Judy Tadlock
Maricopa Association of Governments
302 North 1st Avenue, Suite 300
Phoenix, Arizona 85003
FAX Number: (602) 254-6490

Electronic Download Information: A downloadable version of these forms in Microsoft Word is available on the MAG website at <http://www.mag.maricopa.gov/project.cms?item=413>. If requested, MAG staff will also provide these forms via e-mail or FAX.

MAG Contact Information: If you have any questions, please contact Stephen Tate or Eileen Yazzie at (602) 254-6300 or at state@mag.maricopa.gov.

Agency Contact Information: Please complete the following contact information for each project, so that we may contact you should we need additional information.

1. Name of the Agency Contact for the Project Request: Faisal Saleem, Maricopa County DOT	2. Telephone: 602-506-1241
3. E-mail faisalsaleem@mail.maricopa.gov	4. Date: September 7, 2007

ITS PROJECT APPLICATION FORM – FY 2009-2013 TIP

Part A: Project TIP Listing Information and Description

Section One: TIP Listing Information.

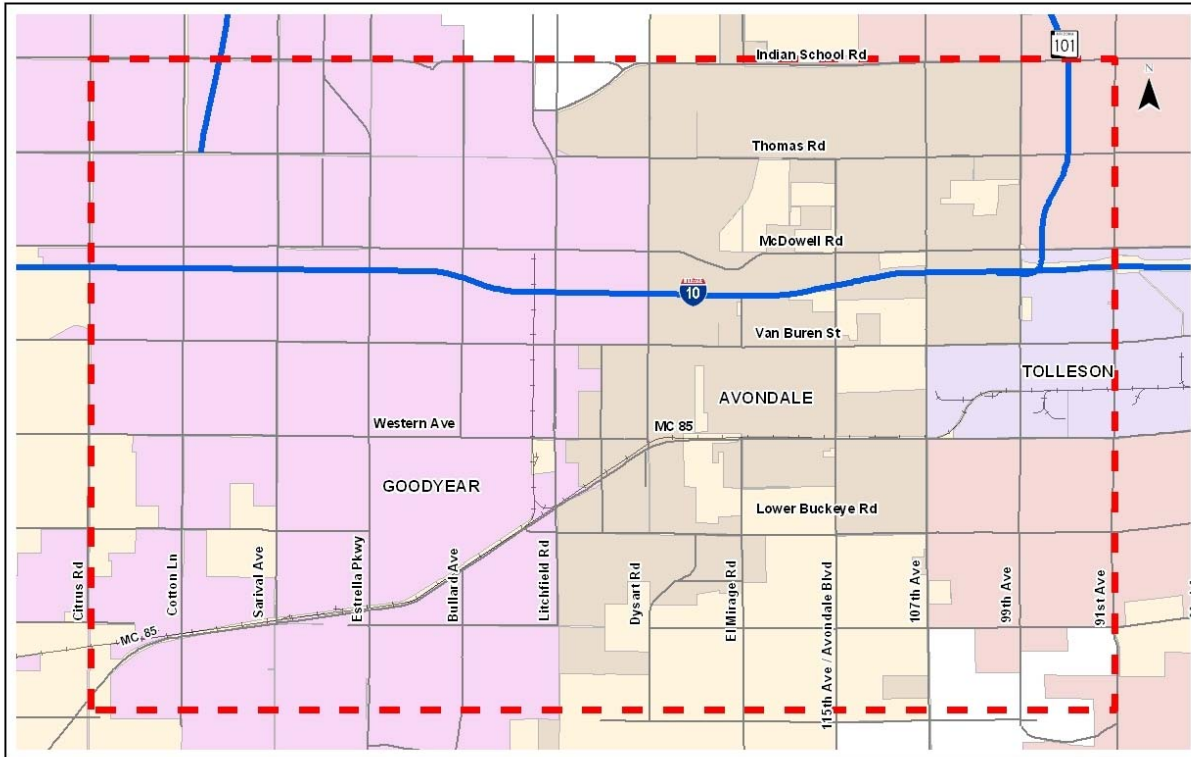
Please complete the following information for all projects. If the project is accepted for MAG federal funding, the project information provided in this section will appear in the TIP as provided by the applicant

1. Sponsoring Agency Name: Maricopa County DOT, City of Avondale, City of Goodyear	2. Year (Please check box): <input checked="" type="checkbox"/> FY 2013
3. Project Location (The project limits if applicable): Southwest Valley, 99th Avenue to Cotton Lane, to include McDowell Road, Van Buren Street, MC85/Buckeye	
4. Type of Work (Description of the work to be performed): Develop a multi-agency Operations Plan that will support coordinated arterial operations, freeway/arterial coordination, incident management and traveler information. This Operations Plan will include agency roles and responsibility, equipment operations guidelines, traveler information guidelines, agency contact information, and multi-agency operational procedures.	
5. Amount of Federal Funds Requested (This amount cannot exceed 70.0 percent of the total cost of the project.): \$35,000	6. Type of Federal Funds Requested (Please check box.): <input type="checkbox"/> MAG STP <input checked="" type="checkbox"/> CMAQ
7. Amount of Local Funds to be Used (This amount cannot be less than 30.0 percent of the total cost of the project.): \$15,000	8. Type of Local Funds to be Used: (Please check <u>only one</u> box.): <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"><input checked="" type="checkbox"/> HURF</div> <div style="width: 50%;"><input type="checkbox"/> Impact Fees</div> <div style="width: 50%;"><input type="checkbox"/> General Fund</div> <div style="width: 50%;"><input type="checkbox"/> Bond Proceeds</div> <div style="width: 50%;"><input type="checkbox"/> Sales Tax</div> <div style="width: 50%;"><input type="checkbox"/> Private</div> <div style="width: 50%;"><input type="checkbox"/> Property Tax</div> <div style="width: 50%;"><input type="checkbox"/> Other, Please specify: _____</div> </div>
9. Total Cost of the Project: (This amount must equal the sum of the federal and local amounts requested): \$50,000	

ITS PROJECT APPLICATION FORM – FY 2009-2013 TIP

Part A: Project TIP Listing Information and Description

10. Please attach a map, drawing, photograph, plans or other graphic showing the location of the project. If no graphic is available or it is not feasible to provide one, please indicate this fact in the space below.



ITS PROJECT APPLICATION FORM – FY 2009-2013 TIP

Part B: CMS and CMAQ Data

General Instructions: In Part B, the applicant provides data necessary for MAG staff to calculate Congestion Management System (CMS) and CMAQ scores for projects.

Section One: Congestion Management System and CMAQ Data

Please complete the following information for all street projects. The information used in this section is used to calculate CMS scores.

<p>1. Current Average Daily Traffic (ADT) on the Facility or the Nearest Parallel Facility of a Similar Type:</p> <p>4,000 – 24,000</p>	<p>2. Name of the Roadway Section Used for the ADT Estimate:</p> <p>McDowell Road, Van Buren Street, and MC85 (within the project limits of 99th Avenue and Cotton Lane)</p>	<p>3. Type of Facility to be Improved (Check only <u>one</u> box):</p> <p><input type="checkbox"/> Arterial > 4 legs (e.g. Grand)</p> <p><input checked="" type="checkbox"/> Arterial Street</p> <p><input type="checkbox"/> Collector Street</p> <p><input type="checkbox"/> Other</p>
<p>4. Number of Through Lanes Currently on the Facility Prior to Project Completion (Do <u>not</u> include right, left or center turn lanes):</p> <p>Arterials in the study area include two and four lanes.</p>	<p>5. Number of Through Lanes on the Facility After the Project is Completed (Do <u>not</u> include auxiliary lanes):</p> <p>Arterials in the study area include two and four lanes.</p>	<p>6. Length of the Facility (in miles):</p> <p>10 miles</p>
<p>7. Township Coordinate of the Midpoint of the Facility:</p> <p>T1N</p>	<p>8. Range Coordinate of the Midpoint of the Facility:</p> <p>R1W</p>	<p>9. Section Coordinate of the Midpoint of the Facility:</p> <p>Multiple Sections</p>

ITS PROJECT APPLICATION FORM – FY 2009-2013 TIP

Part B: CMS and CMAQ Data

10. If the project improves traffic signal coordination, please do the following:

- a. Enter the pre-improvement (current) traffic speed of the traffic corridor: **35 – 45 MPH**
- b. In the Table Check the Box in The Row That Best Describes the Project (Check Only One Box):

Before (Pre-Improvement) Condition	After (Post Improvement) Condition	Expected Increase In Speed
<input type="checkbox"/> Non-interconnected, pre-timed signals with old timing plan	Advanced computer-based control	25.0 percent
<input type="checkbox"/> Interconnected, pre-timed signals with old timing plan	Advanced computer-based control	17.5 percent
<input type="checkbox"/> Non-interconnected signals with traffic-actuated controllers	Advanced computer-based control	16.0 percent
<input type="checkbox"/> Interconnected, pre-timed signals with actively managed timing	Advanced computer-based control	8.0 percent
<input checked="" type="checkbox"/> Interconnected, pre-timed signals with various forms of master control and various qualities of timing plans	Optimization of signal timing plans. No change in hardware	12.0 percent
<input type="checkbox"/> Non-interconnected, pre-timed signals with old timing plan	Optimization of Signal Timing Plans	7.5 percent

11. Other Project Information: (Check as many as are applicable):

- ☐ Includes Traffic Signal Improvements for a Single Agency
- ☒ Includes Traffic Signal Improvements that Apply to More than One Agency
- ☐ Includes FMS Improvements
- ☐ The Project Conforms to Local Land Use Plans
- ☒ The facility is on the adopted MAG Roads of Regional Significance Network
- ☐ Adds Traffic Signals that increase pedestrian crossing time for seniors

12. Management System (Please check only one box)

- ☒ Congestion Management System (CMS) ☐ Safety Management System (SMS)
- ☐ Bridge Management System (BMS) ☐ Intermodal Management System (IMS)
- ☐ Pavement Management System (PMS) ☐ Other
- ☐ Public Transportation Management System (PTMS)

13. Please identify the priority the agency places on this project. If for example, the agency is submitting three requests for ITS projects and this is the agency's highest priority, then a "1" should be entered. Each priority entered should be unique – e.g. no two requests for ITS projects should have the same priority.

MCDOT Priority #4

Part C: MAG Technical Committee Additional Information

This section is used to collect information requested by the MAG ITS Committee. The MAG ITS Committee is charged with evaluating and recommending ITS projects for federal funding. **Part C is only available electronically.** It is available at: <http://www.mag.maricopa.gov/project.cms?item=413>, or you can contact Leo Luo: lluo@mag.maricopa.gov, and he will send you the electronic file.

Contact Information

Please contact Sarath Joshua or Leo Luo at (602) 254-6300 or sjoshua@mag.maricopa.gov, lluo@mag.maricopa.gov for additional information or questions.

**FY 2009 - 2013 TIP - Programming 2013
MAG ITS Project Data Form**

Please enter project data **ONLY** in highlighted cells, save the file with the lead agency name in it - ie. Mesa ITS Projects.xls

Submit this Excel workbook to MAG via email to: **LLUO@MAG.MARICOPA.GOV**

Please use one worksheet per project, with the tab at the bottom indicating agency priority

Links to various websites are provided for additional information and help

The worksheet titled "Example" shows an example on how to enter Data in the highlighted areas. If errors are detected alerts will pop-up in **red text**.

The worksheet titled "HELP" shows how to figure out your project's ITS Subsystems & Architecture Flows

Please enter required information in highlighted cells

A. Project Title & Sponsor

Lead Agency	Maricopa County DOT
Other Partnering Agencies	City of Avondale, City of Goodyear, Arizona DOT
ITS Project Title:	West Valley Corridors Operations Plan

B. Project Goals & Objectives

Project Goals:

Enhance coordinated operations of key arterial corridors in the West Valley by developing a comprehensive ITS operations plan. This plan will include procedures and processes for joint operations of equipment and infrastructure, multi-agency traffic management and control strategies, traveler information, and coordination between freeway and arterial networks. This project will not implement any infrastructure or connectivity, but it will establish multi-agency operational procedures.

Objectives:

- Establish procedures and processes for multi-agency traffic management, including device monitoring and operations and shared use by city and county traffic managers
- Develop consistent traveler information processes, such as standard DMS messages
- Address day-to-day operations, incident management and planned special event management
- Establish procedures for coordination among partner agencies, including notifications, emergency overrides, and shared use policies

C. Define ITS Subsystems, Achitecture Flows, Communications & Arterial ITS Applications

SELECT ITS Subsystems:

<http://www.iteris.com/itsarch/html/entity/pa>

Yes or No

Center Subsystem

No

Traveler Subsystem

No

Field/Roadside Subsystem

No

Vehicle Subsystem

No

Communications Subsystem

No

This project will not establish any connectivity or interfaces, so there are no architecture subsystems identified.

Architecture Flows

(Information flows among four subsystems: Traveler, Center, Roadside and Vehicle Subsystems)

From Subsystem	To Subsystem	Information flow
----------------	--------------	------------------

This project will not establish any connectivity or interfaces, so there are no architecture flows identified.

Communications: Required communications medium for data sharing with other agencies: (if applicable)

From agency	To agency	data flow	Medium	Existing?	Future (year) mm/yyyy	Check Date with Project Schedule

<u>Arterial ITS applications</u>	Relevant Applications (ENTER: Yes or No)	<u>Applicable ITS User Services Addressed</u> http://www.iteris.com/itsarch/html/user/userserv.htm	<u>Applicable ITS Market Packages</u> http://www.iteris.com/itsarch/html/mp/mpindex.htm
1. Traffic Management	Yes		ATMS01, ATMS03
2. Transit Operations Support	No		
3. Interagency Data Sharing and Control	Yes		ATMS03, ATMS07, MC10
4. Integrated Traveler Information	Yes		ATMS06, ATIS02, EM6, EM10
5. Archived Data Management	Yes		AD1, AD2
6. Incident Management	Yes		ATMS08, EM2, EM10
7. Freeway-Arterial	Yes		ATMS07

D. Project Budget

- (1) The total of all federal funds requested for ITS projects by any MAG member agency should not exceed \$1 million per program year per agency.
- (2) Joint projects that involve 3 or more agencies may exceed \$1m in federal cost. Federal cost of each agency's component will not be counted against the \$1m limit.
- (3) There is no limit on the number of projects that may be submitted by an agency, but each project requires the 30 percent local cost match
- (4) For multijurisdictional projects, the federal and local shares of each partnering agency must be shown below.

	Federal Cost	Local Match (min 30%)	Total Cost
Lead Agency	\$35,000.00	\$15,000.00	\$50,000.00
Partnering Agency#1			\$0.00
Partnering Agency#2			\$0.00
Partnering Agency#3			\$0.00
Total	\$35,000.00	\$15,000.00	\$50,000.00
Cost percentage	70.0%	30.0%	

Note: Each participating agency should provide at least 30% local match for its share of the total cost

E. Project Schedule

The following project milestones and schedules are based on a typical project procurement process. Please select applicable milestones. Some ITS projects may follow an abbreviated process. ENTER estimated time for such a process

Standard Project Milestones	Default Schedule for Process	Applicable Milestones (ENTER - Yes OR No)	Estimated Time to Milestone (ENTER #Months)	Estimated Date (Enter> mm/yyyy)
Apply for ADOT project number				Jan-2012
Receipt of ADOT project number	Mar-2012	Yes	2	Mar-2012
Initial DCR	Apr-2012	Yes	4	Apr-2012
Final DCR	May-2012	Yes	6	Jul-2012
30% Preliminary Plans, Cost Estimate and Report	Jul-2012	No	0	NA
60% Preliminary Plans, Cost Estimate and Report	Sep-2012	No	0	NA

Final Preliminary Plans, Cost Estimate and Report	Nov-2012	No	0	NA
Environmental Clearance	Sep-2012	No	0	NA
Utility Clearance	Oct-2012	No	0	NA
Right-of-Way Clearance	Jul-2012	No	0	NA
Approval of IGA	Jan-2013	Yes	8	Sep-2012
Obligation authority of Federal funds	Feb-2013	Yes	9	Oct-2012
Advertised Date	Apr-2013	No	0	NA
Final Deployment	Oct-2013	Yes	10	Nov-2012

F. System Maintenance and Operations

Current staff resources available for ITS operations at the local agency (FTEs)

7

Additional staff resources required for fully utilizing features added by project (FTEs)

1

Estimated current annual ITS operations & maintenance budget

\$1,200,000

Estimated additional annual operations & maintenance funds required for features added by project

\$20,000

Estimated DATE from when required additional O&M funds will be available

Oct-2012

Other comments:

Information provided is for MCDOT only. Additional annual operations & maintenance funds shall be agreed upon by partner agencies.

G. Systems Engineering Analysis Requirement

Commitment to address the federal requirement for Systems Engineering Analysis:

Agency's intent to follow the process described in the 'V' diagram (See Appendix A of Arterial ITS Plan) during the project development process

Because this project is not implementing or integrating any equipment, a systems engineering analysis is not a relevant component. Appropriate systems engineering principles, where applicable, will be incorporated into the plan. This could include operational concepts and system verification and testing procedures for various arterial management systems within the identified corridor(s).